List of Current Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 - 11 (Cancelled).

12. (New) A method for optimizing emission of broadband transmission pulses of a pulse echo method, comprising the steps of:

transmitting transmission pulses with a preselected pulse repetition frequency (TAKT); and

switching the polarity of a pulse with each cycle of the pulse repetition frequency (TAKT), depending on a random sequence (PNCode).

- 13. (New) The method as claimed in claim 12, wherein: the pulse repetition frequency (TAKT) is constant.
- 14. (New) The method as claimed in claim 12, wherein: the pulse repetition frequency (TAKT) is additionally jittered.
- 15. (New) The method as claimed in claim 12, wherein: the pulse form of the transmission pulse is of any shape.
- 16. (New) A method for optimizing emission of broadband transmission pulses of a pulse echo method, comprising the steps of:

transmitting transmission pulses with a preselected pulse repetition frequency (TAKT); and

suppressing individual pulses with each cycle of the pulse repetition frequency (TAKT), depending on a random sequence (PNCode).

17. (New) The method as claimed in claim 16, wherein: the pulse repetition frequency (TAKT) is constant.

- 18. (New) The method as claimed in claim 16, wherein: the pulse repetition frequency (TAKT) is additionally jittered.
- 19. (New) The method as claimed in claim 16, wherein: the pulse form of the transmission pulse is of any shape.
- 20. (New) A circuit for optimizing emission of broadband transmission pulses of a pulse echo method, comprising:

two transmission signal generators (Senders A, B) of differing polarity, between whose output signals switching occurs back and forth, depending on a produced, random sequence (PNCode).

21. (New) A circuit for optimizing emission of broadband, transmission pulses of a pulse echo method, comprising:

two transmission signal generators (Senders A, B) of differing polarity, which are switched in and out, depending on a produced, random sequence (PNCode).

22. (New) A circuit for optimizing emission of broadband transmission pulses of a pulse echo method, comprising:

a transmission signal generator (Sender C) which can be switched in its polarity and which is switched, depending on a produced, random sequence (PNCode).

23. (New) The circuit as claimed in claim 20, wherein:

the random sequence (PNCode) is a PN-code sequence produced by a PN-code generator circuit.

24. (New) The circuit as claimed in claim 23, wherein:

said PN-code generator circuit comprises a multi-stage, shift register (Q1-Qn) having feedback taps.

25. (New) The circuit as claimed in claim 24, further comprising:

an XOR-gate for the feedback taps.

26. (New) The circuit as claimed in claim 21, wherein: the random sequence (PNCode) is a PN-code sequence produced by a PN-code generator circuit.

27. (New) The circuit as claimed in claim 26, wherein: said PN-code generator circuit comprises a multi-stage, shift register (Q1-Qn) having feedback taps.

- 28. (New) The circuit as claimed in claim 27, further comprising: an XOR-gate for the feedback taps.
- 29. (New) The circuit as claimed in claim 22, wherein: said PN-code generator circuit comprises a multi-stage, shift register (Q1-Qn) having feedback taps.
- 30. (New) The circuit as claimed in claim 29, wherein: said PN-code generator circuit comprises a multi-stage, shift register (Q1-Qn) having feedback taps.
- 31. (New) The circuit as claimed in claim 30, wherein: said PN-code generator circuit comprises a multi-stage, shift register (Q1-Qn) having feedback taps.